

MATERIAL SAFETY DATA SHEET
MITTLER SUPPLY, INC.3607 S. Main St. • P.O. Box 1676 • South Bend, IN 46634-1676
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IV. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: See Section II.

I. PRODUCT IDENTIFICATION

PRODUCT	Refrigerant 502
CHEMICAL NAME	Chlorodifluoromethane & Chloropentafluoroethane
SYNONYMS	Monochlorodifluoromethane & Monochloropentafluoroethane
FORMULA	Mixture of CHClF_2 (Fluorocarbon 22) and $\text{C}_2\text{Cl}_2\text{F}_5$ (Fluorocarbon 115)
CHEMICAL FAMILY	Fluorocarbon
MOLECULAR WEIGHT	120.44, average

TRADE NAME Refrigerant 502

II. HAZARDOUS INGREDIENTS

For mixtures of this product request the respective component Material Safety Data Sheets. See Section IX.

MATERIAL (CAS NO.)	WT (%)	1984-1985 ACGIH TLV-TWA (OSHA-PEL)
Chlorodifluoromethane (75-45-6)	48.8	1000 ppm (None currently established)
Chloropentafluoroethane (76-15-3)	51.2	1000 ppm (None currently established)

III. PHYSICAL DATA

BOILING POINT, 760 mm. Hg	-45.6°C (-50.1°F)	FREEZING POINT	-156.7°C (-250°F)
SPECIFIC GRAVITY ($\text{H}_2\text{O} = 1$)	1.25 @ 20°C	VAPOR PRESSURE AT 20°C	132.2 psig
VAPOR DENSITY ($\text{air} = 1$)	2.5	SOLUBILITY IN WATER, % by wt.	<0.01 Negligible
PERCENT VOLATILES BY VOLUME	100	EVAPORATION RATE (Butyl Acetate = 1)	500
APPEARANCE AND ODOR	Colorless gas at normal temperature and pressure; slightly ethereal odor.		

EMERGENCY PHONE NUMBER

IN CASE OF EMERGENCIES involving this material, further information is available at all times:

ChemTrec: 1/800/424-9300

For routine information contact your local Mittler Supply office.

MITTLER SUPPLY requests the users of this product to study this Material Safety Data Sheet (MSDS) and become aware of product hazards and safety information. To promote safe use of this product, a user should (1) notify its employees, agents and contractors of the information on this MSDS and any product hazards and safety information, (2) furnish this same information to each of its customers for the product, and (3) request such customers to notify their employees and customers for the product of the same product hazards and safety information.

EFFECTS OF SINGLE (ACUTE) OVEREXPOSURE:

SWALLOWING — A highly unlikely route of exposure. This mixture is a gas at normal temperature and pressure, but frostbite of the lips and mouth may result from contact with the liquid.**SKIN ABSORPTION** — Prolonged or widespread skin contact with the liquid is unlikely, but may result in the absorption of harmful amounts of material.**INHALATION** — Asphyxiant. High concentrations may cause dizziness, nausea, vomiting, disorientation, confusion, incoordination, and narcosis. Very high concentrations may cause suffocation. Lack of oxygen can cause death.**SKIN CONTACT** — A highly unlikely route of exposure. This mixture is a gas at normal temperature and pressure. Liquid may cause frostbite.**EYE CONTACT** — A highly unlikely route of exposure. This mixture is a gas at normal temperature and pressure. Liquid may cause severe corneal injury.**EFFECTS OF REPEATED (CHRONIC) OVEREXPOSURE:** No evidence of adverse effects from available information.**OTHER EFFECTS OF OVEREXPOSURE:** At high concentrations may produce cardiac arrhythmias or arrest due to sensitization of the heart to adrenalin and nor-adrenalin. This mixture is an asphyxiant. Lack of oxygen can cause death.**MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:** A knowledge of the available toxicology information and of the physical and chemical properties of the material suggests that overexposure is unlikely to aggravate existing medical conditions.**SIGNIFICANT LABORATORY DATA WITH POSSIBLE RELEVANCE TO HUMAN HEALTH HAZARD EVALUATION:** None currently known.

EMERGENCY AND FIRST AID PROCEDURES:

SWALLOWING — This product is a gas at normal temperature and pressure.**SKIN** — For exposure to liquid, immediately warm frostbite area with warm water (not to exceed 105°F). In case of massive exposure, remove clothing while showering with warm water. Call a physician.**INHALATION** — Remove to fresh air. Give artificial respiration if not breathing. Give oxygen if breathing is difficult. Call a physician.**EYES** — For contact with the liquid, immediately flush eyes thoroughly with water for at least 15 minutes. See a physician, preferably an ophthalmologist, immediately.**NOTES TO PHYSICIAN:** Do not administer adrenalin due to the sensitizing effect of fluorocarbons on the myocardium. Treatment of overexposure should be directed at the control of symptoms and the clinical condition.